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### Towards a developing construct in dance education

**Citation for published version:**

Wenn, B, Mulholland, R, Timmons, W & Zanker, Y 2018, 'Towards a developing construct in dance education: Exploring the relation of emotional intelligence to teachers' sense of efficacy and teaching experience among British dance education students', *Research In Dance Education*, vol. 19, no. 1, pp. 14-38. <https://doi.org/10.1080/14647893.2017.1354843>

**Digital Object Identifier (DOI):**

[10.1080/14647893.2017.1354843](https://doi.org/10.1080/14647893.2017.1354843)

**Link:**

[Link to publication record in Edinburgh Research Explorer](#)

**Document Version:**

Peer reviewed version

**Published In:**

Research In Dance Education

**Publisher Rights Statement:**

This is an Accepted Manuscript of an article published by Taylor & Francis in "Research in Dance Education" on 27/3/2018, available online at : <https://doi.org/10.1080/14647893.2017.1354843>

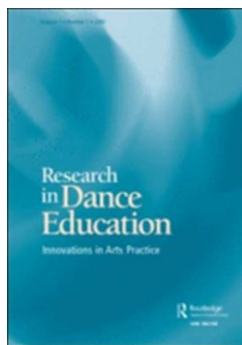
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**Towards a developing Construct in Dance Education –  
Exploring the Relation of Emotional Intelligence to  
Teacher’s Sense of Efficacy and teaching Experience among  
British Dance Education Students.**

Journal:	<i>Research In Dance Education</i>
Manuscript ID	CRID-2016-0055
Manuscript Type:	Special Issue - New Writers' Prize
Keywords:	emotional intelligence, dance education, teacher self-efficacy, teacher effectiveness, teaching experience, multiple case study

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**Towards a developing Construct in Dance Education – Exploring the Relation of Emotional Intelligence to Teacher’s Sense of Efficacy and teaching Experience among British Dance Education Students.**

Theories of emotional intelligence (EI) have already been applied successfully in the field of education, and EI has been found to predict different aspects of teaching such as influencing one’s self-beliefs. Positive associations among emotional intelligence (EI) and teachers’ self-efficacy (TSE) and length of teaching experience have been reported. This study aims to investigate potential associations between EI, TSE, and length of teaching experience amongst British postgraduate students of dance education (PGDE) students. A sequential mixed-methods design was applied, including both qualitative and quantitative methods in order to capture examples of emotionally intelligent dance students. Measures of the trait emotional intelligence questionnaire (TEIQue) and the teacher sense of efficacy scale (TSES) were administered to a sample of eight PGDE students. The results suggest a positive association between trait emotional intelligence, its subscales and teachers’ self-efficacy and between the TEIQue total score and the length of teaching experience. Qualitative data was collected via a multiple case study, evaluating four cases among the participants. Three main themes merged from the qualitative data: dance background, teaching experience and self-efficacy beliefs, exploring further the findings from the preliminary analysis. Specific student dance teacher development programmes have been suggested to enhance dance teachers’ emotional intelligence.

KEY WORDS: dance education; emotional intelligence; teachers’ self efficacy; teacher effectiveness; teaching experience; multiple case study;

# **Towards a developing Construct in Dance Education – Exploring the Relation of Emotional Intelligence to Teacher’s Sense of Efficacy and teaching Experience among British Dance Education Students.**

## **Introduction**

The pedagogical practise of dance education has, during the recent decades, changed considerably (Sööt and Viskus, 2014). Nowadays it is widely accepted that the transformation of dance content knowledge into knowledge for teaching and learning involves far more than dance technique and control, and that teachers need a wide range of teaching strategies and learning to involve and engage their students (Chappell 2007; Smith-Autard 2002; Sööt and Leijen 2012).

In both primary and secondary schools in the UK, dance education emerges in a variety of frameworks such as general education, physical education, expressive arts education, and as a subject in its own right. Dance education incorporates increased relationships, engagement, self-esteem, and positive behaviour that foster inclusive education (Learning and Teaching Scotland 2006; Henley 2012). For effective teaching in classrooms, the recognition of dance education specialist’s emotional intelligence level, teacher self-efficacy beliefs and the relationship between the two become crucial. Emotional intelligence (EI) is also promising as a way to influence potential teacher outcomes while supporting the personal and professional wellbeing of the teacher.

To be deemed emotionally intelligent, Mayer, Caruso and Salovey (1999) argue that EI increases with age and experience, as is the case with other cognitive abilities. Day and Caroll (2004) found that years of work experience correlated positively with overall emotional intelligence. Chan (2004) also reports that EI predicts different aspects of teaching such as influencing teachers’ beliefs about self-efficacy. The construct of EI have already been applied successfully in the some fields of education (Humphrey, Curran, Morris, Farrell

and Woods 2007), as in medical education (Lewis, Rees, Hudson and Bleakley 2005), elementary and pre-service education (Ogrenir 2008; Corcoran and Tormey 2012), higher education (Gliebe 2012), physical education (Laborde, Dosseville and Allen 2015; Mouton, Hansenne, Delcour, and Cloes 2013), however lacks in the field of dance education.

The objective of this study was to first identify the emotional intelligence characteristics of postgraduate dance education (PGDE) students who have demonstrated experiences in teaching dance prior to undertaking the dance education programmes at postgraduate (PG) level within Higher Education in the UK. The second objective is relative to the construct of self-efficacy, which Bandura (1997) defined as “beliefs in one’s capabilities to organise and execute the courses of action required to produce given attainments” (p.3). It is therefore important to examine the possible relationship between EI and teacher self-efficacy (TSE) beliefs in the PGDE students. Such a relationship can serve to highlight the formation of beliefs that determine effective and ineffective teaching later on. By ensuring the mental wellbeing of teachers and student teachers, the relationship between EI and TSE will support their positive impact within the school environment (Vesely, Saklofse and Leschied 2013; Yost 2006).

Accordingly, after evaluating the levels of trait emotional intelligence and teacher’s self-efficacy beliefs for the PGDE students, the main aim of the present study is, to investigate whether a relationship exists between both features or not. Lastly, the study examines the role length of teaching experience in developing emotional intelligence.

**Emotional Intelligence framework**

Emotional intelligence was first referred to in academic literature in 1990 and defined as

“the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (Salovey & Mayer 1990, 189).

However popularity and worldwide interest of emotional intelligence resulted from through Goleman’s book *Emotional intelligence; Why it can matter more than IQ?* (1985). Later, Goleman (1998a) defined EI as

the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and others’ (9).

Due to the variety of conceptual EI models, the existence of different commonly used measures in research and corporate studies is not surprising. Petrides and Furnham (2001) posit that fundamental differences exist between ability EI (cognitive-emotional ability) and trait EI (emotional self-efficacy) dependent on the measurement method. Accordingly, ability EI should be measured by performance and trait EI should be measured by self-reports (Lewis et al. 2005). The trait EI model, as defined by Petrides and Furnham (2001) and applied to this study, ‘encompasses behavioural dispositions and self-perceived abilities and is measured through self-report’ (425–448).

A vast amount of research has documented positive associations between trait EI and wellbeing related variables (Petrides, Pita and Kokkinaki 2007; Schutte, Malouff, Simunek, Hollander, and Mckenley 2002). Trait EI is also seen as a stress moderator (Mikolajczak and Luminet 2008; Mikolajczak, Roy, Luminet, Filee, and Timary 2007) and some studies show a positive correlation between EI and performance variables like job performance and self-efficacy (Chan 2004; Sy, Tram, and O’Hara 2006) which raise emotional intelligence’s recognition as a predictor for teacher self-efficacy.

EI is a developing concept in the field of education because the emotional relationships between teachers and students are an important part of teaching (Koçoğlu 2011). EI also promotes effective teaching (Perry and Ball 2005). EI's skillset overlaps with and contributes to a large section of the positive factors constituting teacher efficacy (Vesely, et al. 2013). Studies have shown a positive association between EI and performance variables, such as job performance and self-efficacy (Chan 2004; Koçoğlu 2011; Sy, et al. 2006). Isenbarger and Zembylas (2006) emphasise that working with emotions plays a major part in teaching and therefore heightens a teacher's sense of commitment, satisfaction, and self-esteem. Therefore, the knowledge of EI is a crucial aspect in teacher training and must be included in both academic and social performances in order to complete a high-quality education.

A systematic review about EI in sport and exercise (Laborde et al. 2015) shows that EI relates to emotions, psychological stress responses, successful psychological attributes and athletic performances. Mouton et al. (2013) document a positive correlation between EI and self-efficacy beliefs among physical education teachers and pose the assumption that emotional intelligence affects self-efficacy. Poor sociability, one of the four interrelated factors of EI is an important aspect in the loss of student motivation (Bo, Weidong, Haichun and Rukavina 2010) and seems to stem from a lack of EI (Petrides 2009). Physical education teachers must develop encouragement tactics while comparing student achievements (Gonzales-Cutre, Sicilia, Moreno and Fernandez-Balboa 2009). Similarly, this claim can be made for dance education (Hecht 2012), although, little research has been conducted to date on EI in dance education (Petrides, Niven, and Mouskounti 2006).

Petrides et al. (2006) examined the relationship between self-efficacy and other ratings of trait EI, as well as the relationship between trait EI scores and ballet dancing ability

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3 ratings. Hecht (2012) argues ‘that applied EI in ballet education would contribute positively  
4 to the intellectual and social development of dancers, and their artistic growth’ (67).

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7 Considering that ballet training is located within the dance curriculum, findings on EI in  
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9 vocational ballet training (Hecht 2012) may be applied to dance education in school settings.  
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11 However, over the past three decades, academics and dance scholars (Buckroyd 2000; Hecht  
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13 2007; Johnston 2006; Warburton 2004) have voiced serious concerns about pedagogical  
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15 approaches of dance teachers in elite dance training.  
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### 18 19 20 **Teacher Self-Efficacy**

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23 The approach to teacher self-efficacy has evolved from the theoretical and conceptual strand  
24 of self-efficacy seen in Bandura (1977,1986,1997) over the course of educational research. A  
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26 tremendous amount of research has been sparked by the reinforcement of teacher efficacy  
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28 amidst prospective teachers and student teachers. It is believed that through reflection on past  
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30 experiences, individuals develop self-beliefs, which affect their expectations to achieve  
31  
32 specific goals. According to Mulholland and Wallace (2001), proficiency experience is a  
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34 relevant source of efficacy beliefs for novice teachers.  
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38 Gibson and Dembo (1984) developed the Teachers Efficacy Scale (TES) in order to  
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40 provide Bandura’s (1977) self-efficacy construct with a valid and reliable measuring tool.

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42 Since its inception, the TES and its variants have been commonly used in order to assess the  
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44 self-efficacy beliefs of teachers from diverse educational and cultural backgrounds (Allinder  
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46 1994; De la Torre Cruz and Casanova Arias 2007; Guskey and Passaro, 1994; Hoy and  
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48 Woolfolk 1993; Woolfolk, Rosoff, and Hoy 1990). Redefining teacher self-efficacy as ‘the  
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50 teacher’s beliefs in his or her own ability to organise and execute the courses of action  
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52 required to successfully accomplish a specific task in a particular context’, Tschannen-  
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Moran, Woolfolk Hoy and Hoy, (1998, 233) introduced, a new self-efficacy scale: the Ohio Teacher Efficacy Scale (OTES), later called the Teachers’ Sense of Efficacy Scale (TSES).

*Teacher self-efficacy beliefs in expressive arts, physical and dance education*

Considering lack of literature related to dance education teachers’ efficacy, research on teacher self-efficacy (TSE) in physical education, arts education, and general education have been sourced since dance education and is often categorised in tandem with these subject areas. Eroglu and Unlu (2015) conducted a survey study analysing the effects of self-efficacy on physical education teacher candidates’ attitudes towards teaching. Besides physical education, dance is also linked to arts and general education. Since arts education is an important element in the curriculum of any classroom, an investigation of the beliefs that shape teacher practice is desirable (Garvis and Pendergast 2011). Few studies in Australia investigate the impact of teacher self-efficacy on the overall effectiveness of the teacher with an arts education (Garvis 2010). However, only a few studies explore the construct of self-efficacy in the dance education setting. Renner (2015) examines the self-efficacy beliefs of New Zealand generalist teachers for teaching dance as an arts discipline. The connection between self-efficacy beliefs and subject knowledge confidence was found. However, there was none between the self-efficacy beliefs and the frequency of teaching dance, school context factors or years of teaching experience. These connections set a link between arts, general and dance education. Another study by Renner (2012) investigating teachers’ efficacy beliefs in dance education of New Zealand (Stinson, Svendler-Nielsen, and Liu 2013) states, ‘that after 10 years of dance in the national curriculum, teachers have progressed in their confidence and efficacy beliefs for teaching dance’ (1). Fong (2002) identifies teacher self-efficacy as a determining factor for folk dance teaching instructed by physical education teachers. In order to improve dance educator effectiveness, Clark (2003)

recommended specific activities and strategies to sue pursue while teaching. However, a teacher's sense of efficacy is affected by many factors, as Penrose, Perry and Ball (2007) discuss.

### Teaching Experience

Broad evidence within the available literature demonstrates that emotional intelligence was found to be positively associated with work experience (Goleman 1998b; Shipley, Jackson, & Segrest 2010). Experience plays an important role in teachers' self-efficacy, as seen in the research by Tschannen-Moran & Woolfolk Hoy (2001). Tsui (1995) found that the 'years of teaching experience in a teaching setting is an overriding factor in moulding one's feelings of teaching efficacy' (372). Bandura's (1997) description of mastery and vicarious experiences as main sources of efficacy beliefs coincides with the above present findings (Penrose et al. 2007).

### Method

The purpose for conducting this study was to investigate, in a sample of British PGDE students, the relationship between emotional intelligence and teacher self-efficacy and the extent to which the level of trait emotional intelligence is moderated by teaching experience.

It was hypothesised that

- (1) dance education students with teaching experience who reported higher levels on emotional intelligence would also report higher level of teachers' sense of self-efficacy.
- (2) there would be a significant difference in the dance education students' trait emotional intelligence that would relate to the length of teaching experience.

This study adopted a mix of a sequential and a dominant model, where the quantitative phase of data collection and analysis was followed by the qualitative phase. The mixed method research was based on a multiple case study, where an exploratory and descriptive approach, combined with interpretative phenomenological analysis (IPA) and the epistemological paradigm of pragmatism have been applied. Pragmatism is also seen as an epistemologically justifiable philosophy, when approaching quantitative - qualitative mixed method studies (Onwuegbuzie, Dickinson, Leech & Zoran, 2009).

The quantitative method and data analysis as applied in the preliminary analysis, used in some ways, a positivistic approach which records and measures participants' quantitative responses to provide a general understanding of their EI and TSE levels. The survey instruments allow for easy quantification and the descriptive statistics favour clear analysis. This exploratory approach is required in an attempt to build the initial groundwork for the next phase of the study. The qualitative component of the main study provides a different type of data, investigating participants' answers to the questionnaires in more depth to help enrich and explain the statistical results (Creswell and Plano-Clark 2011; Punch 2009; Robson 2011). Interpretative phenomenological analysis (IPA) is deemed appropriate as qualitative approach for further exploring the quantitative results of the survey linked to qualitative results of the interviews. The phenomenological approach involves detailed investigation of the participants' environment and attempts to explore personal experience (Smith and Osborn 2003). Simultaneously, the researcher's active role is ensured in the dynamic process of the research, as described in IPA. This process therefore uses a double hermeneutic, or a two-stage interpretation. As the participants perceive their environment, the researcher attempts to understand the participants' perception (Packer and Addison 1989; Palmer 1969).

Mixed-method sampling was used to recruit participants with experience in teaching dance and for who the research questions were of interest. Participant selection for the qualitative phase is influenced by the quantitative data collection, while analysis of the qualitative data is the base of the multiple case study. For the preliminary study the participants have been recruited through convenience sampling via e-mail from all postgraduate DSE students of the current academic year. Inclusion criterion was limited to British secondary education due to variations in curricula between nations, which might affect the development of students' emotional intelligence. Eight PGDE students gave consent to participate in the survey, and completed the self-reported questionnaires measuring trait EI and TSE.

Stratified purposive sampling (Sandelowski 2000) was used to select four participants on the basis of their EI and TSE scores. In compliance with the standards of interpretative phenomenological analysis (IPA) (Smith 1996), a small sample of four participants was considered an appropriate number for data collection. The sample size prevents generalizations when forming conclusions, instead focusing on the individual perceptions of the participants (Smith and Osborn 2003).

## Instruments

The current study applied the Trait Emotional Intelligence Questionnaire (TEIQue), as provided by the London Psychometric Laboratory (Petrides 2009). The TEIQue is a self-reporting psychometric instrument, consisting of 153 items measured by a seven-point Likert scale. In order to assess self-perceptions, the TEIQue incorporates 15 facets: emotion perception, trait empathy, emotion expression, relationships, emotion regulation, stress management, impulsiveness, adaptability, self-motivation, assertiveness, emotional management, social awareness, self-esteem, trait happiness and trait optimism. The

combinations of all facets during factor analysis reveal the four EI factors: self-control, wellbeing, sociability and emotionality, as well as a global trait EI (Petrides 2009). The TEIQue can be considered as a research instrument in the current research with regards to the study of Petrides et al. (2006) and their findings about the role of trait EI in ballet dancing ability. This study reports a positive and statistically significant relationship between global trait EI scores and teacher ratings of dance ability, originating from the well-being and emotionality components of the construct (Petrides 2009, 43). Moreover the TEIQue is reported as the only inventory covering the sampling domain of trait EI comprehensively (Austin, Parker, Petrides, & Saklofse 2008). Many studies report that the TEIQue demonstrates strong evidence of criterion, concurrent, discriminant, incremental, predictive, and construct validity (Petrides 2009, 26). The study of Mikolajczak, Luminet, Leroy and Roy (2007) shows excellent psychometric properties of the total TEIQue and the factors, with a Cronbach's alpha ranging from .75 to .86.

The Teachers' Sense of Efficacy Scale, also called Ohio State Teacher Efficacy Scale (OSTES) was applied to the study with the permission of the Ohio State University. The 24 items scale, as recommended by Tschannen-Moran and Woolfolk Hoy (2001) for pre-service teachers, is a self-reporting instrument, while every item is measured on a 9-point Likert-type scale. The TSES is used within several studies in physical education (Mouton et al., 2013) and in dance education (Renner, 2015). The overall reliability of the 24 items TSES is high with a Cronbach's alpha of .94 for the global TSES (Tschannen-Moran & Woolfolk Hoy, 2001).

While this research will contribute pioneering work to the field of EI and teacher self efficacy in dance education, the reliability of the research is questionable. The limitations of the study included the selection of the participants, the data gathering timeline, the instruments and data used in the study. The external validity of the study is weakened

through the recruitment of participants through convenience sampling. The sample may not be representative of the entire population, as the participants in the study were not randomly selected. Therefore, due to the limited number of participants obtained for the study and their restriction to one study cohort only, the sample cannot be representative of other dance education programmes throughout or external to the United Kingdom.

An interview guide was developed consisting of questions about events that occurred in the past or evolved over time during the dancers' and teachers' pathway as PGDE students. Open-ended questions about dance background, teaching experience and self-efficacy beliefs gave the respondents a chance to talk about the superordinate themes, sub-themes and categories, as shown in Table 1, freely and provided detailed information for a better understanding of the data gathered from the survey.

Table 1. Themes emerged from the interview guide

Superordinate Themes	Sub-themes	Categories
Dance Background	Early Dance Contact	Dance style
		Age
	Motivational Factors	
	Dancer and Teacher Training	
Teaching Experience	Spectrum of Dance Styles	Personality Traits
	Teaching Style	Student Relationship
		Student
Self-Efficacy	Emotional Aspects	Teacher
	Differences in TSE	
	Skills	
	Development	

**Procedures**

The data collection consisted of two stages, the preliminary study and the main study. For the preliminary study participants were recruited after careful consideration and appropriate ethical clearance. Participants were requested to complete the questionnaires anonymously. The data were collated and entered onto Excel and SPSS data files for analyses. TEIQue datasets have been automatically scored on-line (London Psychometric Laboratory 2016), providing scores on 15 facets, four factors, and the global trait EI. To produce data from the TSES datasets on global TSES, the means have been computed via Microsoft Excel software.

For the main study participants have been selected with regards to their scores of Trait EI and TSE, generating the four cases in this multiple case study. The interviews, conducted via Skype™, lasted 30 – 45 min each, were digitally recorded and transcribed verbatim. The interview data was coded and categorised, with a focus was on fleshing out the participants' views. The findings from the interviews have been coded in form of the presage/process/product model (Gray 1989), similar to those designed by Mitzel (1960), Dunkin and Biddle (1974), and Harnischfeger and Wiley (1976). These cases will be subject to an in-depth analysis in the discussion, relating emotional intelligence issues across cases as well as the variables it depends on: teacher self-efficacy and length of teaching experience

**Results**

The findings of this study are the result of the applied mixed method research design. Within this study quantitative data have been gathered through the preliminary analysis and qualitative data through the multiple case study.

***Preliminary Analysis***

The preliminary data analysis was conducted in order to select participants for the main study

by measuring the means of the total and sub-scale TSES and TEIQue scores. Investigating the level of TEI, its factors and the TSE, the scores were analysed. The distribution of the mean values of TEIQue and TSES total scores among the sample of eight PGDE students is presented in Figure 1.

*Insert Figure 1 Here*

#### *Trait Emotional Intelligence*

Descriptive statistics were explored, including the total mean and the means of the four trait EI factors as shown in Table 2. The highest mean of the total TEIQue score is 5.8 and the lowest mean is 4.0 out of a possible score of 7.0. The reliability of the scales was tested in the form of internal consistency with the Cronbach's alpha coefficient. Alphas for each factor are  $\alpha = .92$  for the wellbeing,  $\alpha = .80$  for the self-control,  $\alpha = .90$  for emotionality factor,  $\alpha = .14$  for sociability factor and  $\alpha = .92$  for the total TEIQue score. The total TEIQue including the trait EI factors have from good to excellent reliability. These are consistent with the results of the study of Mouton et al. (2013). However the sociability sub-scale shows an unacceptable level of  $\alpha = .14$ , resulting due to one outlier response or a low sample size that can deflate alpha due to the larger difference between the variances.

#### *Teacher Self-Efficacy*

Descriptive statistics were explored. Results are presented in Table 2. The highest mean for total TSES is 9.0 and the lowest mean is 5.6 out of a possible score of 9.0. The reliability of the TSES as measured with the Cronbach's alpha coefficient of the total score is  $\alpha = .96$ .



Table 2. Descriptive Statistics for all participants for the teaching experiences global TSES, global TEIQue value and TEI factors.

	<i>Mean</i>	<i>Std Deviation</i>	<i>Low</i>	<i>High</i>	<i>α</i>
	<i>n = 8</i>	<i>n = 8</i>			
TSES	7.0	1.1	5.6	9.0	.96
TEIQue	5.0	.7	4.0	5.8	.92
Wellbeing	5.3	.8	3.9	6.2	.92
Self-control	4.8	.8	3.6	5.8	.80
Emotionality	5.1	.3	2.4	6.1	.90
Sociability	4.9	.5	4.3	5.8	.14

*Relationship Trait Emotional Intelligence and Teachers' Sense of Efficacy*

The relationship between trait emotional intelligence (as measured by the TEIQue) and teachers' self-efficacy beliefs (as measured by the TSES) was examined using non-parametric Spearman's rank correlation coefficient (Spearman's  $\rho$ ). There was a high significant positive correlation between TEIQue total score and TSES total score,  $\rho = .71$ ,  $p < .05$ . Positive correlations were also found between the TEIQue factors and the total TSES with Wellbeing  $\rho = .64$   $p < .01$ , Sociability  $\rho = .63$ ,  $p < .01$  and Emotionality  $\rho = .63$ ,  $p = .01$ . However the self-control factor shows a weaker positive correlation with  $\rho = .24$ ,  $p < .57$ , compared to the other TEIQue factors.

Table 3. Correlations between the TSES values and the TEIQue total scores and TEI factors.

<i>Spearman's rho</i>		TSES total
TEIQue	Correlation Coefficient	.71**
	Sig. (2-tailed)	.05
Wellbeing	Correlation Coefficient	.64*
	Sig. (2-tailed)	.09
Self-Control	Correlation Coefficient	.24
	Sig. (2-tailed)	.57
Emotionality	Correlation Coefficient	.63*
	Sig. (2-tailed)	.10
Sociability	Correlation Coefficient	.64*
	Sig. (2-tailed)	.09

\* significant at p = 0.1 level, \*\* significant at p = 0.05 level

### *Relationship Trait Emotional Intelligence and Years of Teaching Experience*

The data was analysed using descriptive statistics, and non-parametric Spearman rho. Table 2 presents the means and standard deviations (SD) among all respondents of the demographic survey. All participants demonstrate years of teaching experience prior to the PGDE programme. The teaching experience ranges from two to twenty five years, with a mean of 10.8 years and a SD of 8.0 years. Figure 2 shows the distribution of the values of TEIQue total scores and the years of teaching experience of all participants. Figure 3 displays the relation between the TEIQue total score and the length of teaching experience of all participants with an  $r^2$  of 0.19, which indicates a linear relation.

*Insert Figure 3 Here*

The relationship between TEIQue total score and its factors and the length of teaching experience are computed by Spearman's rho as shown in Table 4. Strong positive

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*Insert Figure 3 Here*

The relationship between TEIQue total score and its factors and the length of teaching experience are computed by Spearman’s rho as shown in Table 4. Strong positive

relationships were identified between TEIQue total score ( $\rho = .55$ ), self-control factor ( $\rho = .54$ ) length of teaching experience and the sociability factor ( $\rho = .76$ ). In contrast, the correlation between TEIQue emotionality factor and length of teaching experience indicates a medium positive correlation ( $\rho = .33$ ) and a small positive relationship between TEIQue wellbeing factor and length of teaching experience ( $\rho = .28$ ).

Table 4. Spearman's correlation between EI and teaching experience

Spearman's rho	Teaching Experience
TEIQue total	.55
Wellbeing	.28
Self-control	.54
Emotionality	.33
Sociability	.76

Multiple case studies

After having analysed the TEIQue total score, the trait EI (TEI) factors and the TSES, four students, Betty, Celia, Dora and Elli (the names have been changed in order to protect anonymity) were invited based on their TEIQue and TSES values to participate in a multiple case study. The focus of this study was on how the teaching experience and a sense of self-efficacy beliefs influence participants' EI levels to gain a deeper understanding of the TEIQue and TSES results.

Table 5 connects the demographic information to teaching experience, and the descriptive information to the total TSES and TEIQue scores and the TEI factors of the interviewees. The results indicate significant differences between the total trait EI and EI factors of self-control and emotionality scores between the four participants. Within the TSES, low but significant difference was shown between the interviewees. Betty reports a significantly higher level of TSES with 9.0 out of maximal score of 9.0. She also shows the

highest length of teaching experience with 25 years, compared to Celia with 7 years, Dora with 13 years and Elli with 11 years.

Table 5. Demographic and descriptive statistics of the TEIQue total scores, its factors, the TSES total scores and the length of teaching experience of the interviewees

Participants	Betty	Celia	Dora	Elli
Teaching Experience	25 years	7 years	13 years	11 years
TSES Total	9.0	6.5	7.5	5.6
TEIQue Total	5.8	5.4	4.6	4.0
Wellbeing	6.2	6.0	5.0	4.2
Self Control	5.7	5.0	3.8	5.1
Emotionality	5.8	5.8	5.2	2.4
Sociability	5.8	4.6	5.8	5.0

The four cases have been compiled into three cross-cases, presented as a presage/process/product model (Gray 1989), as shown in Tables 6 and 7 (presage variables), Table 8 (process variables) and Table 9 (product variables).

#### *Presage component*

The following variables emerged from teacher background: The findings are presented in Table 6 (determinants) and Table 7 (experiences and properties).

*Determinants:* Including age, sex, and socio-economic status, determinants are defined in this study as variables, established prior to teacher preparation or dance training. They have been gathered through the demographic questionnaires of the survey. All participants were women, which was coincidental and only reflects the fact that most of dance teachers are women.

Table 6. Variable Determinants of the Presage Component

Participants	Betty	Celia	Dora	Elli
<b>Determinants</b>				
Age	47 years	34 years	31 years	41 years
Gender	Female	Female	Female	Female
Nationality	UK	UK	UK	UK
Academic Degree	A level	Bachelor	Bachelor	Master

*Experiences:* Gray (1989) outlines that ‘the experiences of teachers are related to training, performance, participation, education and overall exposure to dance’ (12). All participants started their dance teachers’ pathway as performing artists and currently work more in the field of teaching rather than performing. Dora detailed:

In my second year of training, I discovered that I hated performing. I got so nervous that my body would go into a sort of panic attack.

*Properties:* A teacher’s properties, i.e. measurable personality characteristics and traits, include self-concept, creativity, and motivation, as well as the teacher’s theoretical dance knowledge and technical dance skill (Gray 1989, 12). According to Dunkin and Biddle

(1974), teacher properties hold a heavier role than observable teacher determinants and therefore should be part of more in-depth studies. They also speculate that the instruments used in property assessment have a ‘mystique of their own’ despite compelling evidence of demographic variable influence (41). Dance teachers differ in both their dance style, and also characteristics of their teaching styles. Ballet instruction is known worldwide for being authoritarian. Therefore, it is no wonder, that PGDE students with ballet background represent a more teacher-centric style. Moreover, personal teaching style is linked with personality trait categories. When interviewees were asked about four personality traits, they provided a variety of responses. As a common trait, all four participants stated passion. As most all participants were introduced to dance in childhood and youth, participants were asked about influential and motivational factors. These were usually identified as family,

specifically the mother or grandmother. Besides the immediate and direct impact of family, school, and peers, physical (dance as safe physical activity) and psychological factors (enjoyment, self-expression) are reported as important factors to dance class and training commitment.

I enjoyed it, I was good and I managed to go into local sort of professional productions and things like that, so I think I enjoyed it (Elli).

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Table 7. Variables: Experience and Properties of Presage Component

Participants	Betty	Celia	Dora	Elli
<b>Experiences</b>				
Early dance contact	3 years	3-4 years	12 years	3 years
Dance Training	Ballet, tap, jazz,	Ballet, tap	Starts with	Ballet, modern,
	standard &	Modern	community dance,	tap
	Latin ballroom	Musical theatre	from 16 years on	No formal dance
	No formal training	ISTD	contemporary	training, focus on
	Learning by doing		dance	dance technique
Academic/ college education	No formal training	Vocational college	National school of	Started BSc in
	No conventional path,		contemporary	dance, dropped
	Fellowship		dance / college	out after 2 months
			(QCF)	Scottish Dance Teachers Alliance
Performance	Dance competitions	Performing artist	Community dance	Local dance
	Ballroom & Latin	Contemporary dance		production
Teacher Training	Apprentice ship in	Teaching artist in	Teaching assistant	No formal
	dance centre	dance company	National school of	training for
	Shadowing other	centre	contemporary	teaching, doing
	dance school teachers	Training on the job	dance	on the job,
		No formal training	Shadowing other	Scottish Dance
			school teachers	Teachers Alliance
Teaching	25 years	7 years	13 years	11 years
	Ballet, more	Ballet technique and	Ballet technique	Mainly based on
	technique as	contemporary dance	and contemporary	teaching Tap
	performance	Various private	dance	dance
	Strengths in Latin and	dance schools,	Various private	State schools
	ballroom		dance schools,	3-18 years
	Various private dance			curriculum
	schools,			
<b>Properties</b>				
Personality	Passionate	Passionate	Passionate	Passionate
	Patient	Flexible	Empathic	Non-empathic
	Motivational	Personal	Creative	Controlled
	Respectful	Open	Enthusiasm	Masterly
Motivational factors	Parents	Health issues	Teaching dance	Mother &
	Competitions in Latin	Ballet as safe	artist at school,	grandmother,
	& Ballroom	physical activity,	Community dance	Being good
	Dance teacher	External,	teacher,	Professional
		Mother,	Self-expression	production,
		Dance teacher		Enjoyment



Personal teaching style	Authoritarian Teacher-centric style	Personal approach, inclusive ethos	Own teaching style, based on creativity	Authoritarian, Teacher-centric style
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For Peer Review Only

Personality	Passionate	Passionate	Passionate	Passionate
	Patient	Flexible	Empathic	Non-empathic
	Motivational	Personal	Creative	Controlled
	Respectful	Open	Enthusiasm	Masterly
Motivational factors	Parents	Health issues	Teaching dance	Mother &
	Competitions in Latin	Ballet as safe	artist at school,	grandmother,
	& Ballroom	physical activity,	Community dance	Being good
	Dance teacher	External,	teacher,	Professional
		Mother,	Self-expression	production,
		Dance teacher		Enjoyment

### *Process component*

The process component includes the following three variables emerged from the dance studio, school or educational settings: environment, curriculum and behaviour, as seen in Table 8. Teacher and student's behaviours are paramount to the process component. Objectively measured, their analysis provides the dance education field with invaluable information (Gray 1989, 13).

*Environment:* Main element of the process component is the dance teaching environment including physical, social and pedagogical aspects in the classroom, as class composition and spectrum of dance styles. All participants are teaching within different age groups and class levels and most of them are teaching a spectrum of dance styles. Solely Elli reported to being mainly a tap dance teacher.

*Curriculum:* The curriculum also plays an important role in the teaching process. However, as most of the participants are teaching in the private sector, very limited information is received through the case studies.

*Dance Teacher Behaviour:* Teachers' behaviours are related to the teachers' roles as information provider, guide, and monitor. The case-studies results are explored with regard to the student-teacher relationship, varying as the diversity in the environment and teachers' personalities.

Table 8. Variables of Process Component

Participants	Betty	Celia	Dora	Elli
Environment				
Class composition	Amateur/ beginner to vocational/professional students Children, youth, adults	Beginner to advanced From toddlers to seniors	Beginner to advanced	Beginner to advanced
Spectrum of dance styles:	Ballet techniques, Latin/& Standard Ballroom	Ballet techniques, Creative contemporary dance	Ballet techniques, Creative contemporary dance	Tap
Curriculum				
Objectives	Ballet – Syllabus For vocational dancers  Ballroom & Latin Social dance for adults	No syllabus Creativity work	No syllabus Creativity work	Tap - Association
Dance Teacher Behaviour				
Student-teacher relationship	Mutually respectful, Demonstrating Commanding	Interactive Conversation	Leader, Personal	Friendly Authoritative

Product component

The product variables consist of four outcome recipient groups: teachers, students, school, and society. The findings of the case studies presented are focusing on the teacher outcomes, including job satisfaction and self-fulfilment, as shown in Table 9.

Teacher outcomes: Self-efficacy has been reported as a moderator of negative and positive self-fulfilling prophecy effects in school settings (Willard, Madon, Guyll, and Jassim 2007). Participants, being asked about their teacher self-efficacy, answered differently with yes and

no. To progress in their teacher efficacy, all interviewees wished to attend further trainings and personal development programmes.

Table 9. Variables of Product Component

Participants	Betty	Celia	Dora	Elli
<b>Teacher outcomes</b>				
Teacher Self-efficacy skills	Intrinsic & extrinsic motivated, Experienced, Observational Understanding & knowing students, Not only the dance	Sensitive Being aware of students' needs Flexible Social skills	Listen to the class / students needs	Positive Inclusive school settings
Self-efficacy beliefs	Yes	Yes	No	No, Need skill Improvement
Skills to improve	Psychological skills	Training with experts in one field,	Psychological skills	

## Discussion

The study confirmed the dance education challenges identified in previous research, such as in the paper of Sööt and Viskus (2014). Most of the TEIQue subscales and factor scores either adequate or high internal consistencies, in spite of the small size of the sample. The study shows that PGDE students score high level of EI. This might be based on the fact, that teaching dance has, beside physical activity, also creative and aesthetic aspects. With regard to the TSES, the values found for the PGDE students can be compared with the results from PE. The present study found also a positive relationship between PGDE students' EI and years of teaching experience, indicating that those who were more experienced tended to have stronger EI than those with a lower experience as dance teachers. Individual differences in background, work experience and personal characteristics may help to explain the different

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values and levels of the total TEIQue and the TEI factors.

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*Wellbeing Factor*

The means of the wellbeing factor among the PGDE cohort shows the highest mean with 5.9 of all means and a standard deviation (SD) of .12 with an excellent internal consistency ( $\alpha = .80$ ). The wellbeing factor includes three trait EI facets: self-esteem, happiness and optimism. High scores of wellbeing reflect generalised sense of wellbeing, extending from past achievements to future expectations. Overall, individuals with high scores feel positive, happy and fulfilled. Wellbeing factor is associated positively with extraversion, positive mood, job satisfaction and faith in intuition (Petrides 2009). Within the case studies, Betty scored a mean of 6.2 and Celia of 6.0 within the trait EI wellbeing facet, which theoretical maximum is 7.0. Both show a significant higher score in wellbeing as the average theoretical mean of this factor (3.5), what may indicate positive and open personality characteristics. Interviewed to their personality characteristics, it was not a surprise that Betty answered being ‘patient, positive, passionate and respectful’ and Celia ‘flexible, open, personable and passionate’. These answers are consistent with the computed trait scores from the survey. In contrast Dora (5.0) and Elli (4.2) scored lower total TEIQue values, reporting in the interview to personality characteristic empathy, enthusiasm, creative and dedication (Dora) and non-empathic, passionate, controlled, organised (Elli). These traits are not or only partially listed within the facet of TEI wellbeing factor. Elli reported to the question about dance education, that she dropped out of her undergraduate dance education studies, what may be give a first indices of Elli’s lack of resilience due to low EI. Some predictions posit that having EI will facilitate resilience to stress (Schneider, Lyons and Khazon 2013). Moreover Matthews, Zeidner, & Roberts (2002) take the view that EI is antecedent to resilience.

### ***Self-Control Factor & Stress Management***

Petrides (2009) suggests, that low scores on self-control are prone to impulsive behaviour and may difficult to manage stress (p. 61). Dora, reported a significant low self-control score compared to the other respondents, mainly based on the stress aspect in the classroom management factor of the TSE. Dora talked in her interview about how she disliked performing and she became very nervous. This can be seen as first indicator for low stress management. Dancers often meet various pressures, such as through medias, parents, teammates, through the widely society stereotype of being a dancer (Buckroyd 2000) and the performance by itself. Not each dancer can cope with this stress, which might affect the TEI level. This is consistent with the research of Mikolajczak and Luminet (2008), identifying trait EI as stress moderator, what underpinned its importance in the context of dance performance and dance education. Additionally, Dora states that she is extremely sensitive. This is coherent with Goleman's (2000) statement that sensitivity is a key for superior job performance, whenever the focus is on interactions with people. However the low self-control factor of Dora may affect the total mean of self-control score as the small sample size in factor or item, may lower the total score value due the bigger variance between the samples.

### ***Sociability factor***

The sociability factor focuses on the individual as an agent in social contexts, rather than on personal relationships. Those with low scores in sociability believe they are unable to affect other's emotions and are less likely to be good mediators and networkers. They are unsure what to do or say in social situations, and as result they often appear shy and reserved (Petrides 2009, 61). Compared to the total TEI score mean of 5.6 with a standard deviation of .20, the average mean of the sociability factor is with 5.2. and with a standard deviation of .6



of the sociability factor not significant lower as from the mean of the total EI. However, the sociability subscale shows a non-adequate small internal consistency ( $\alpha = .14$ ), which might be based on the small sample size or on outliers in the responses, irrespective on the negative internal consistency of the facet of emotional management ( $\alpha = -.34$ ), what is directly associated with the sociability factor. Among the interviewees, Celia shows a lower sociability factor score, which might be concluded from her low assertiveness and emotion management subscale as identified for Celia. However, in the interview, no answers to the questionnaire imply the findings. As low emotion management score indicate low capability of influencing of other peoples feeling and low assertiveness factor will prevent the individuals to stand forthright and frank up for their rights (Petrides 2009), it can be argued that the fact, that Celia trained with a teacher with an unique, inclusive and integrated ethos, far from formal teaching and kept this approach to form her one dance teacher personality. It can be argued that this could indicate a possible low assertiveness due dealing with other people in a more passive way.

***Emotionality Factor***

High scores on the emotionality factor restrain the ability of teachers to focus on the interpersonal part of their job as they encounter difficulties to manage their own emotions (Mouton et al. 2013). Empathic and emotional expression factors are two main components of the emotionality sub-factor, as defined by (Petrides and Furnham 2001). Therefore the present findings can be considered as highly consistent with the results of Petrides and Furnham (2000). Among the interviewees, Elli states that she is not very empathic. This finding may explain the low emotionality factor of Elli, showing a significantly low empathic and low emotion expression score, resulting in a low TEI total score compared to the other participants. Petrides (2009) reports that individuals with low scores on this factor find it

difficult to recognise their internal emotional states and to express their feelings to others, which may lead to less rewarding relationships.

### *Teacher' self-efficacy beliefs*

While much has been written about the relationship between EI and TSE in schools (Cherniss 2002; Chesnut and Cullen 2014; Falahati, and Rostami 2012; Ogrenir 2008, Penrose et al. 2007), this is the first investigation about of the relation of trait emotional intelligence to teacher self-efficacy of dance education students. In most of the reviewed literature, EI scores were positively related with self-efficacy beliefs (Chan 2004, 2006; Chesnut and Cullen 2014; Mouton et al. 2013; Penrose et al. 2007). The present results strengthen the existing argument that emotional intelligence is related to self-efficacy. The findings are consistent with the literature on teacher efficacy as reported by Chan (2006) and Mikolajczak and Luminet (2007), who found that individuals who exhibited high emotional intelligence show high self-efficacy. The analysis of the questionnaire data shows that PDE students have a relatively high teacher self-efficacy. The global mean scores 7.0 with a SD of 1.1, ranged of 9.0 to 5.6. This result revealed that TSE scores of the PGDE students are significant above the theoretical average of the mean of 4.5 out of the 9-point Likert scale. The findings reports a high reliability (overall  $\alpha = .96$ ), what correlates with the findings of the study of Renner (2015), investigating primary teachers' efficacy beliefs in dance education, and reports TSE total score of 7.2 (SD = .90,  $\alpha = .94$ ).

The in-depth interviews explored the experiences of selected PGDE students to better understand how dancer background, teaching experiences and self-efficacy beliefs influenced their emotional intelligence level and as well as the manner in which self-efficacy beliefs were developed. Understanding self-efficacy sources might provide more information on how self-efficacy beliefs can predict emotional intelligence levels. With the highest TSES of 9.0,

Betty's score might alter the overall result from the preliminary study. The lowest total TSES of 5.6 among all study participants is still above the average, which underpins the findings about the high level of teachers' sense of self-efficacy of PGDE students. The values found for the PGDE students in their TSE beliefs can be compared with the results from similar literature in the context of PE. Varol (2007) reported that PE teacher candidates' self-efficacy was high. Similar studies (Ünlü 2008; Yilmaz, Yilmaz and Türk 2010) determined both PE teachers and PE teacher candidates' self-efficacy levels showed both groups to have high self-efficacy. Considering PGDE students' self-efficacy levels within the context of PE teachers, the following positive effects can be listed: motivating students, ensuring student engagement and encouraging them to enjoy course activities can be listed as such effects.

*Length of Teaching Experience*

The most common sources of self-efficacy are based on the experiences that participants identified to influence their efficacy (Hand 2014). Celia talked about the impact her dance teacher had on her dance teacher career. With regard to this experience during her dancer and teacher trainings, the received total TSES of 6.5 out of 9.0 is not surprising and underlines Celia's self-efficacy beliefs. Pre-service teachers' feelings towards efficacy rely on the observation capacity during their training with a lack of experiences in observing master teachers having a negative impact on the efficacy. However, all participants report dance teaching experience prior to the PGDE programmes, which may explain the high score of teacher self-efficacy beliefs. This is coherent with Ross's (1998) early research and his conceptualization of teacher efficacy, suggesting that, with experience, teachers develop a relatively stable set of core beliefs about their teaching abilities.

The present study found a moderate relationship between teachers' EI and their years of teaching ( $\rho = .55, p < 0.05$ ). This connection indicated that those who were more

experienced in teaching dance tended to have stronger EI than those with a lower experience as dance teachers. Results within different education settings, such as primary and secondary teachers were found with positive correlations (Penrose et al. 2007; Mayer et al. 1999; Ghanizadeh and Moafian 2010) and negative associations (Cobb 2004; Rastegar and Memarpour 2009). The study of Penrose et al. (2007) demonstrated that a teacher's level of EI is related to their sense of efficacy, independent of their experience, which suggests that the length of teaching experience has no impact on the relationship between EI and teacher self-efficacy.

### **Conclusions, Implications and Limitations**

Research has documented the increasing value of emotional intelligence in education, for both effective teaching and student achievement (Hen and Sharabi-Nov 2014). The characteristics of teachers possessing a high level of emotional intelligence include setting goals that are clear and mutually agreed upon. Little research exists on emotional intelligence of PE teachers. However, with the view that dance education is still mainly conducted within the PE, findings from the PE can be applied to the dance education context. Moreover, until today, only the work of Petrides et al. (2006) and Hecht (2007), can be seen as the most objective reference in the literature about EI in dancers, and especially in ballet dancers.

The aim of this study was to evaluate the importance of emotional intelligence and self-efficacy in dance education students in order to determine the properties of effective teaching. Findings of the study indicate a moderate relationship between PDE students' EI and their self-efficacy. Therefore, the results of the present study might help researchers and teacher educators to focus on enhancing the emotional intelligence and sense of efficacy for dance education teachers. In addition, according to Chan (2006), emotional intelligence and self-efficacy are traits, which are developmental and can be learned. Therefore, training

programmes can be provided to teachers and teacher candidates with the aim of developing their emotional intelligence and self-efficacy.

Moreover, the findings indicate a significant relationship between the trait EI of dance education students and their years of teaching experience. As see in this research results, there was a positive association in scope of EI and self-efficacy. This discovery means that most importantly, suggestions that improve each of these builds may prompt the improvement of the other. Along these lines, there is a need to consider them as critical components amid educator instruction programmes. Moreover the dance educator should add emotional intelligence and self-efficacy in their curriculum, to develop the necessary practices for their students. This helps students to develop into effective individuals. Programmes whose objective is to improve quality of teaching in schools should invest in improving emotional intelligence and self-efficacy. Lastly, emotional intelligence and self-efficacy can be enhanced through preparation, induction, and mentoring programmes.

***Implication for the practise***

This study investigated the levels of emotional intelligence and self-efficacy, and its relationship in British PGDE students. The study’s findings have direct implications on the students, the university they are enrolled in, preparation and mentoring programmes. Survey responses show that the participants come from a wide range of dance and dance teacher trainings programmes. They also have varying years of experience and continuing education, which is likely an indication for PDE students. While all interviewees reported not receiving training in emotional intelligence and self efficacy and the need to obtain training in dance psychology and dance science, it is the researcher’s opinion that a formal training is not likely needed in such programmes.

The data shows that PDE students are close to what is needed to be emotionally intelligent. However, support is needed to get to the next level. Emotional intelligence can be

promoted through training, and potentially has significant implications to the bottom-line (Cherniss and Goleman 2001). Dance education preparation programmes should integrate emotional intelligence and self-efficacy in their curriculum, to develop the necessary practices and to prepare others as effective teachers. The author feels that deliberate training in emotional intelligence and self-efficacy should occur via principal mentoring programmes. Mentoring programmes during teaching placements may provide the timeframe needed to develop emotionally intelligent and self-efficacious dance education students. Principal mentoring programmes allow the greatest opportunity for mentors and new dance education teachers. This is to develop the necessary emotional awareness when dance educators are deeply involved in their jobs.

### ***Limitation and recommendation for further research***

The current study will bring an important impact into dance education research as emotional intelligence is widely recognised as important and relevant to workplace and job performance. However, this study is only the first step into a series of further research to the construct of emotional intelligence in dance education. The current research demonstrates some limitations, which can be withdrawn with future research projects and to explain the association in a new framework.

Firstly, the participants were solely PGDE students from the same year at one school of education. As such, a second similar study should be conducted to evaluate the association between the main variables among undergraduate dance education students, postgraduate students after placements and dance specialist teaching in both elementary and secondary schools. Secondly, the measure of emotional intelligence has marginal internal reliability, and limited evidence of validity, based on the small sample size. A further study should be conducted involving participants from different universities with higher education dance

education postgraduate programmes. Another issue is the limited generalising of the results. There are many different tests of emotional intelligence and as noted in the introduction, a major schism between tests based on the trait approach and those based on ability. Further research on the same topic should include different measures of emotional intelligence.

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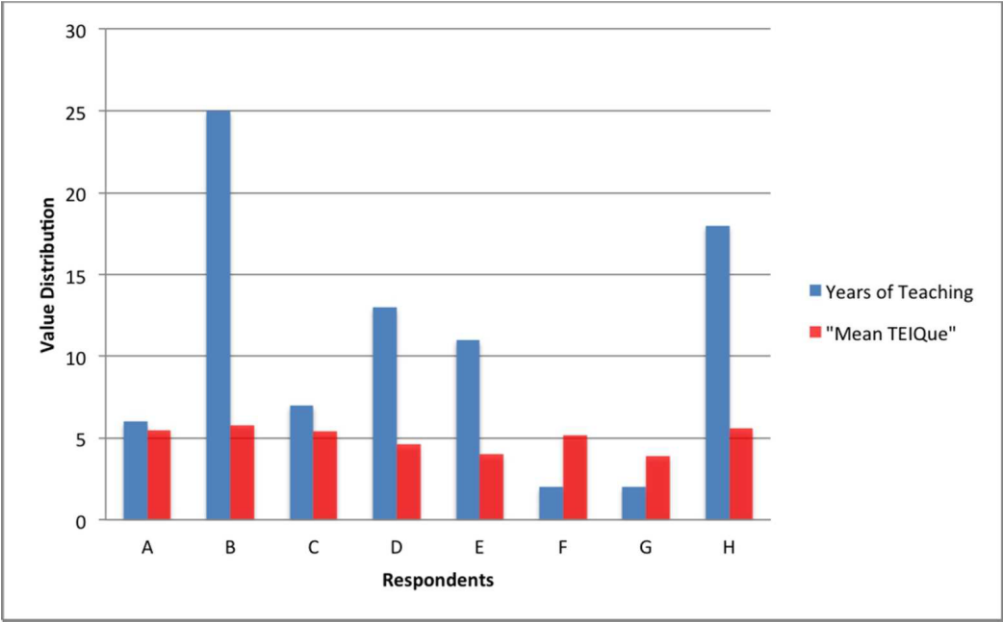


Figure 1. Distribution of TEIQue and TSES total scores of survey respondents  
Notes: The letters A-H represent the individual participants answering the questionnaires.

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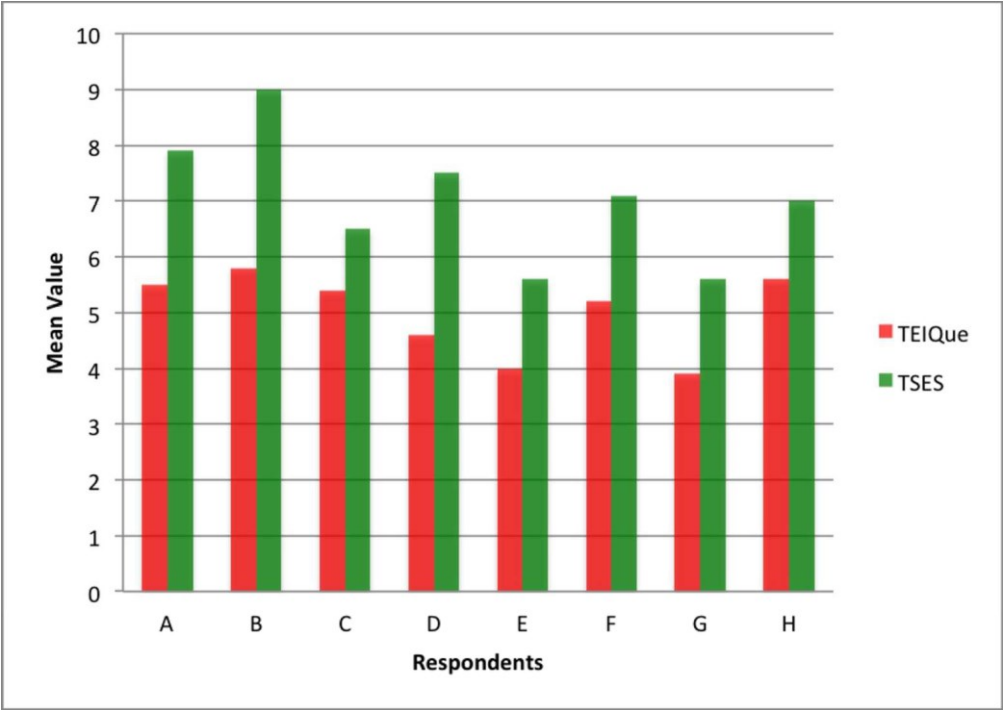


Figure 2. Distribution of TEIQue total scores and years of teaching experience  
Notes: The letters A-H represent the individual participants answering the questionnaires.  
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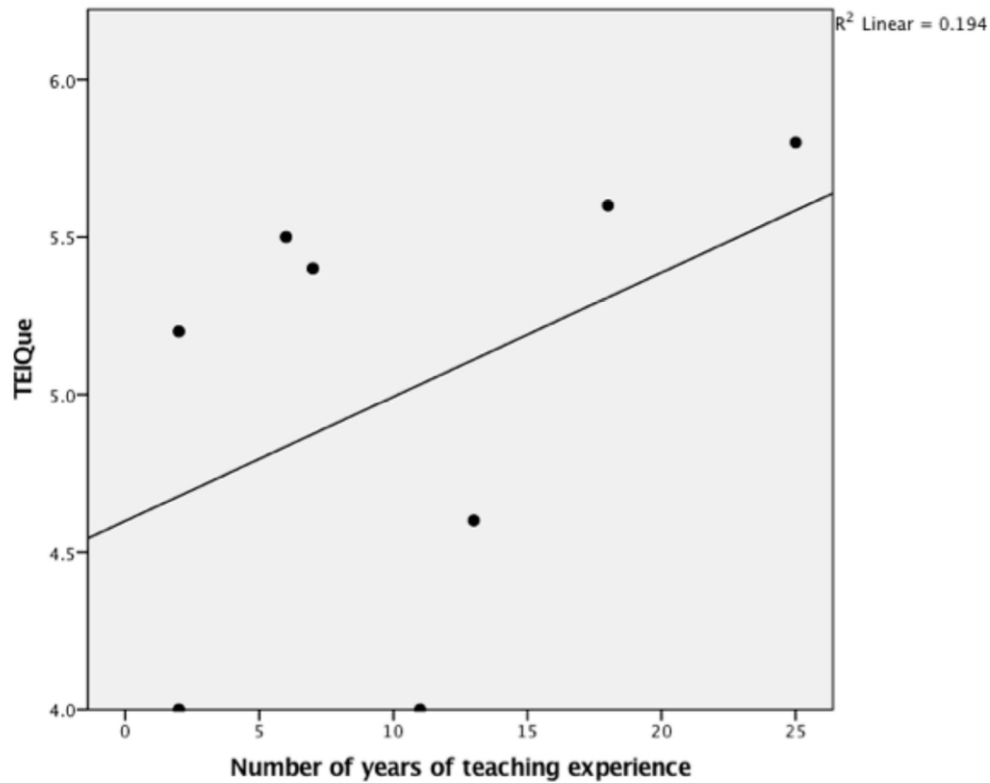


Figure 3. Relation between the TEIQue total score and the length of teaching experience

Insert Figure 3 Here

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